AI or Not AI: The Perspectives of Artificial Intelligence from Contemporary Artists in U.S.

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Abstract

In recent years, there has been a significant shift in the art world, with the use of Artificial Intelligence (AI) becoming increasingly prevalent in our daily lives. This shift has sparked debates about the role of AI in creative practices, particularly in regard to art and art education. The paper focuses on the work of three American artists: Lauren Lee McCarthy, Refik Anadol, and Şerife Wong, exploring their methods and perspectives about AI. These artists demonstrate how AI can push the boundaries of traditional artistic practices, challenging our understanding of what roles it can play in art education. Our aim is to encourage other art practitioners to learn from their insights and practices to help foster critical thinking, embracing the conceptual fluidity and flexibility required for more human-centric AI use.

Keywords

Artificial Intelligence, contemporary AI artists, Lauren Lee McCarthy, Refik Anadol, Şerife Wong, AI artists in the United States

Introduction

Artificial Intelligence (AI) carries a unique capability to both unite and divide people in the realm of art education. As AI's influence on our lives grows, a question arises: Is it an augmentation or a disruption? In a recent workshop, this query was posed to K-16 arts educators from diverse disciplines including visual art, music, dance, theatre, and media arts, as well as school and district administrators. While there was consensus on AI's prevalence in daily life, many still struggled with exploring the technology in educational settings due to its rapid evolution. As AI and advanced technologies increasingly impact us and our environment, our focus on AI and its social effects has intensified (Koo, 2022; Koo, 2023; Song & Koo, 2022). Concerns around adaptation vary, with younger generations adapting easily compared to others. To increase awareness about AI exploration in K-16 school settings and beyond, we hosted workshops led by leading artists working in this field, featuring their work and addressing the immediate consequences. This paper discusses prominent AI artists and their contributions to encourage further examination of AI and its implications.

Background

The concept of AI emerged from an informal conference at Dartmouth College in 1956, coined by John McCarthy, a conference organizer (Miller, 2019). Only recently has it gained widespread media attention. The advancement of computing power, machine learning, and particularly deep learning initially broadened its reach. Around a decade ago, Silicon Valley engineers trained machines to categorize specific images by feeding neural networks with numerous labeled images. Today, rapid advancements in deep learning using larger models and datasets sparked generative AI, yielding sophisticated chatbots and text-to-image software. Since 2015, when Alexander Mordvintsev developed *DeepDream*, artists, scientists, and scholars envisioned limitless art creation possibilities through computers. With numerous public AI tools made freely available by companies, organizations, and research institutions, ordinary people delved into AI's potential. This evolution has led to realities once considered impossible, according to digital culture and new media studies scholar Lev Manovich (2023). As we ponder the nature of this cultural revolution and its implications, art educators must prepare for AI's role; exploring contemporary artists will guide us in understanding the transformation.

Artist Workshops

In the 2023 Spring semester, the first author coordinated five visual art workshops centered on art and technology. These workshops were a pilot study for "The Role of Artificial Intelligence in Art Education: Insights from Contemporary Art Creators," research funded by the National Art Education Foundation in the United States. Five contemporary artists and scholars were chosen due to their diverse backgrounds, diverse perspectives, and unique approaches to AI, including Lauren McCarthy, Alexander Reben, Refik Anadol, and Şerife Wong. We will highlight three workshops and feature the artistic practices and scholarly perspectives of these prominent artists, focusing on their prominence in the AI domain.

1. Lauren Lee McCarthy

Lauren Lee McCarthy, a Los Angeles-based artist (she/they), explores "social relationships, surveillance, and algorithmic living" (McCarthy, n.d.) within their art. With degrees in Computer Science and Art & Design from Massachusetts Institute of Technology and an MFA in Design Media Arts from University of California Los Angeles (UCLA), McCarthy currently holds a professorship at UCLA. Bridging computer science and art & design knowledge, McCarthy artistically and philosophically examines human-technology connections in contemporary society. Through their art, she challenge our understanding of daily life and interactions, prompting reflection on social and technological systems. By artistically integrating technology, McCarthy invites reconsideration of everyday existence and connections with others.

During her workshop, McCarthy showcased her projects, which inspired art activities for attendees. One notable work, "Follower" (2016) in San Francisco, illuminated conflicting human desires—the uneasiness of being observed and surveilled, and the opposite sentiment of crav-

ing for being watched and followed. While many feel monitored in public spaces, there's also a yearning to be seen and followed. McCarthy facilitated participant selection by posing two questions: "Why do you want to be followed?" and "Why should we follow you?" After selecting participants, she trailed and observed their daily lives. This piece reflected the paradoxical era, where surveillance feels omnipresent and beyond control; yet, we also crave attention and sharing of our intimate lives. She underlined that:

This piece was responding to the fact that we're living this weird, anxious time—on one hand, surveillance feels pervasive and out of control; and, on the other hand, we have this intense desire to be seen, to be followed, [and] to share the intimate detail of our lives.

Furthermore, McCarthy led us to reconsider our surroundings enhanced by technological devices, especially in private spaces like home. Pointing out the Amazon's Alexa, she wondered how people could give up their privacy and control of their personal lives in the most intimate space under smart devices' surveillance and automated sensors. By launching the project, *LAUREN*, "The human intelligent smart home"—a human version of Alexa—she took the role of Alexa and shared the participants' experiences, relationships and reactions to the ambiguity between the human to machine and human to human interactions. During the project, while remotely observing the participant 24 hours a day up to a week, McCarthy controlled all aspects of the participants' home, such as turning on lights, controlling temperature, music, alarm, and even having a conversation. McCarthy revealed that "I attempted to be better than an AI, because I could understand them as a person and anticipate their needs." The project analyzes the boundary of private and public exposures, the capabilities and limits of current technology systems compared to human abilities, and relationships between human to machine and human to human in the era of artificial intelligence.

2. Refik Anadol

Refik Anadol is another well-known contemporary media artist and director whose works explore and expand aesthetics of data and its unique representations via technology. Anadol also obtained MFA in Design Media Arts from UCLA where he serves as a lecturer. Anadol seeks to bridge virtual and physical spaces through data visualization and uses Istanbul, Turkey, where he is originally from, as a connection metaphor—in his explanation, the place where "West and East connects" geographically, emotionally, and spiritually.

Anadol approaches existing data with unique perspectives. In his workshop, citing Lev Manovich's (2004) talk, "artists can take the next logical step to consider the invisible space of electronic data flows as substance rather than just as void," Anadol emphasized the importance of invisible space of data flows. He also asserted that data is a "form of memory," which can take "any shape and form." Then, he asked the question, "If machines can "learn" or "process" individual and collective memories, can they also dream or hallucinate about them?" Based on the inquiry, he searched for ways to present machines' dreams or hallucinations. He expressed that "I do believe that if data one day become a pigment, it will never be dry. It will be in flux, like water all the time, constantly shape shifting these molecules." In the same context, Anadol coined the term "data painting" in his early career, and further continued maintaining that "data that we don't see but exist can become a space, can become a surface, [and] can become a physical statement." As exploring data in multiple *paintings*, Anadol shares different form of memories and his unique artistic statements with wider audiences.

Additionally, Anadol explores the possibilities of machine learning and visual representations of data. In his renowned project, *Machine Hallucination*, for which his studio spent seven years (2016-2021) in research, his team downloaded "more than 4 billion images across different domains—urban, culture, nature, [and] space—topics that hopefully belongs to humanity" and visualized them through data paintings. Similarly, in his *Data Universes* project, Anadol showcased the various outcomes of his data visualization of a poem, *Masnavi*, by Rumi. He framed them as a "data sculptures of Rumi," emphasizing that there can be multiple outputs of the same data and same approach in this process. He asserted that utilizing AI, there can be numerous ways of understanding and presenting our surroundings. Investigating means to represent "consciousness and subconsciousness, events such as dreaming, like remembering and hallucinating," Anadol unveils the possibilities of utilizing machines in art making.

3. Şerife Wong

Şerife Wong is a Turkish-Hawaiian contemporary artist working on AI governance. As a researcher, Wong explores the ethics of emerging technology while collaborating with various institutions such as the Center for Advanced Study in the Behavioral Sciences at Stanford. In her workshop, Wong began with the following claim:

> I don't think that we really need to be technologists to talk about AI or do art about AI. We don't need to have any sort of tech background at all. It's a very like human experience to look at how it's impacting us and look at what's going on. And, I think everyone then is a stakeholder, and everyone is valid in having an opinion or wanting to engage with AI.

As one of the stakeholders of AI who is directly impacted by its myth and stories, Wong critically responded to dialogues about AI while urging us to be aware of its limitations. She affirmed that AI is just a "concept,"—neither artificial nor intelligent yet—created for a marketing purpose. Criticizing the errors in the automated system, Wong asserted that there are ongoing "privacy violations, manipulation, propaganda, [and] disinformation" in AI, and it further "creates division between people."

She pointed out the importance of understanding the behind-the-scenes and invisible contexts and power relationships, by stating that "Companies and governments want to control what AI story gets told." In her critical perspective, "AI is just our data. It's like a representation of our past." She further compared this statement with a painting of an apple. She said that "the painting of an apple is not the real apple" and "that apple picture doesn't show the rest of the room." Since AI datasets fed to a computer system by a human fail to include the contexts and nuances of the inserted data, in addition to the fact that it relies on the human's biases, Wong maintained that "Algorithms predict our future based on our flawed past" and "embedded biases within the data."

One of the examples she provided was, a study published in *ProPublica*, "Machine Bias: There's software used across the country to predict future criminals. And it's biased against blacks." In this case, a computer program gave risk scores of individuals, "predicting the likelihood of each committing a future crime," which revealed its racial biases. Nevertheless, in increasing number of courtrooms and at "every state of the criminal justice system," those automated computer systems have been utilized, resulting in misinformed judgments of people (Angwin et al., 2016). Wong further criticized that "The problems in AI are not a technical glitch. It is a social problem. The people who design, implement, and regulate AI are white, male, straight, and upper class." Those hidden dialogues and dynamics were profoundly discussed in the workshop.

Implications for K-16 School and Beyond

Based on the workshops, K-16 educators and teacher candidates gained insights into contemporary AI practices, enabling them to apply these ideas to their future teaching. The current AI discourse necessitates raised awareness on advantages and drawbacks, yet such discussions rarely unfold in classroom environments. Educators require open discussions about these topics. Many participants of the workshops agreed that:

> Students should have opportunities to explore AI and discuss the pros and cons of AI. Giving students the chance to examine AI from both perspectives may help them develop a more open understanding of how to use it to enhance their creativity rather than just as a tool for accomplishing a task.

Another participant further suggested that:

> Educators can have a lesson where students use the generating tools and have a discussion afterwards about their thoughts on AI, learning the pros and cons of AI, and finally allowing the students to decide for themselves on how we should handle these new tools.

There are many benefits and limitations in using AI in educational settings; thus having an open conversation to reexamine both positive and negative aspects of current technological tools can enlighten a wide range of students.

Throughout the workshops, there was a consensus among the artists, scholars and participating students, that AI can be an augmentation or disruption of existing norms and customs. By applying AI into art practices, individuals can expand their artistic scope with innovative and unexpected outcomes as AI is the aggregation of large amount of data. Many students expressed that AI use in art making allows them to imagine and find new innovative ways to express themselves. Furthermore, as another student pointed out, those "image generating websites/software may benefit students that do not have access to art tools or fine motor skills to physically produce their own artwork!" Although this claim can be debated further, it is clear that AI-based tools can provide some students with easier access to art making.

In addition, AI can be a means for making connections and promoting collaboration at a small or larger scale. As we have seen in the media, countries and global organizations across the globe work together in the research and development of AI, strategies, and policy changes (UNESCO, 2021). Also, experts from different fields work together to ensure AI technology is used more effectively and ethically. In a classroom setting, AI can "allow students the opportunity to work together and collaborate, so they are more prepared for our current and changing digital world." AI can be the subject of interest for deep and novel collaboration between individuals with different backgrounds, interests, and strengths. The diversity of skills and opinions would ensure that the use of AI technology is maximized in its benefits and understood with balanced perspectives.

Lastly, in order to benefit from AI, educators need to make their students be fully aware of proper ways of using AI (UNICEF, 2021). There are many issues such as AI ethics or copyright infringements, that they need to pay attention to. As a student stated, "It is inevitable that AI influences our daily lives," thus, "students should be aware of the presence of such instruments within their lives as well as the importance on how to use them ethically and responsibly." Even though the data has been collected from mainly undergraduate students, those implications should be generalizable to other contexts and settings.

Conclusion

AI is at everyone's doorstep. For the uninitiated, AI can be intimidating but as Wong claims, we do not need to be technologists or scientists to talk about AI or make art with AI. AI is multi-faceted and can be leveraged in many ways. While one can explore its meaning and impact, others can use its seemingly unbounded creativity to explore novel areas of art making.

AI is not just your other brush or pigment; AI needs to be handled ethically and responsibly for it to provide a mutual benefit. Art educators need to be aware of its potentials and pitfalls in order to provide students with proper expectations. Discussions and collaborative activities around AI would need to take place in classrooms settings to prepare students to embrace this fast-evolving technology and prevent its misuse, because no other tool in art making has the same power to unite and divide at the same time as AI does.

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Authors Biographies

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